

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figs. 12 and 13. Figs. 12 and 13 have been amended to include the legend “conventional art” as requested by the Examiner.

Attachment: Replacement sheet
 Annotated sheet showing changes

REMARKS

Claims 1-15 are currently pending, wherein claims 1, 2 and 4-6 have been amended. Favorable reconsideration is respectfully requested in view of the remarks presented herein below.

On page 2 of the Office Action ("Action"), the Examiner objects to the drawings under 37 CFR 1.83(a) because the drawings must show every feature of the invention specified in the claims. In addition, the Examiner objects to Figs. 12 and 13 because they do not contain a legend indicating that only that which is old is illustrated. The drawings have been amended as indicated above, thereby addressing the Examiner's concerns.

On page 4 of the Action, the Examiner rejects claims 1-10 and 13-15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,550,290 to Shimakage ("Shimakage") in view of Japanese Patent Publication No. JP 04-359890 to Yashiro et al. ("Yashiro"), Mitsubishi Application Note "Using Intelligent Power Modules" ("Mitsubishi Note 1"), further in view of Toshiba Application Guideline 15 ("Toshiba"). Applicants respectfully traverse this rejection.

In order to support a rejection under 35 U.S.C. § 103, the Examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness three criteria must be met. First there must be some motivation to combine the cited references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every claimed element. In the present case, claims 1-10 and 13-15 are not rendered unpatentable by the combination of Shimakage, Yashiro, Mitsubishi Note 1 and Toshiba for at least the reason that the combination fails to disclose each and every claimed element as discussed below.

Independent claim 5, and claims 6-10 and 13-15 which variously depend therefrom, defines a method of designing a current supply circuit supplied with an AC voltage of a predetermined effective value voltage. The method includes, *inter alia*, selecting switching elements having a breakdown voltage based on a rated current value, the breakdown voltage being twice the breakdown voltage required of the switching element when a DC voltage obtained by performing full-wave rectification on said AC voltage is input to said polyphase inverter circuit.

In rejecting claim 5, the Examiner asserts that the combination of Shimakage, Yashiro, Mitsubishi Note 1 and Toshiba disclose selecting switching element as claimed in as much as the combination discloses that the individual elements (i.e., a voltage doubler, polyphase inverter circuit, and switching elements having a breakdown voltage of 600 V or 1200 V) are known. However, the mere fact that the individual elements are known does not disclose or suggest that one skilled in the art would use a switching element having a breakdown voltage twice the voltage required for the switching element. Furthermore, nowhere in the cited references is there any disclosure or suggestion of using a switching element with a breakdown voltage twice that of the voltage required. Therefore, claims 5-10 and 13-15 are patentable over the combination of Shimakage, Yashiro, Mitsubishi Note 1 and Toshiba for at least the fact that the combination fails to disclose or suggest selecting switching elements having breakdown voltage as claimed. Reconsideration and withdrawal of the rejection of claims 1-10 and 13-15 is respectfully requested.

Independent claim 1, as amended, and claims 2-4 which depend variously there from define a current supply circuit that includes, *inter alia*, the features of claims 5 and 7. Accordingly, claims 1-4 are patentable over the combination of Shimakage, Yashiro, Mitsubishi Note 1 and Toshiba for the same reasons presented above with respect to claim 5.

On page 9 of the Action, the Examiner rejects claims 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Shimakage, Yashiro, Mitsubishi Note 1 and Toshiba, further in view of Mitsubishi Application Note "General Considerations for IGBT and Intelligent Power Modules" ("Mitsubishi Note 2"). Applicants respectfully traverse this rejection.

Claims 11 and 12 variously depend from independent claim 5. Therefore, claims 11 and 12 are patentable over the combination of Shimakage, Yashiro, Mitsubishi Note 1 and Toshiba for at least those reasons presented above with respect to claim 5. Although Mitsubishi Note 2 may disclose how to determine the switching loss in an IGBT circuit, Mitsubishi Note 2 fails to overcome the deficiencies of Shimakage, Yashiro, Mitsubishi Note 1 and Toshiba. Therefore, claims 11 and 12 are patentable over the combination of Shimakage, Yashiro, Mitsubishi Note 1, Toshiba, and Mitsubishi Note 2 for at least the reason that the combination fails to disclose each

and every claimed feature. Reconsideration and withdrawal of the rejection of claims 11 and 12 under 35 U.S.C. § 103(a) is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Penny L. Caudle Reg. No. 46,607 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

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